

REMARKS

In the subject Office Action, the examiner rejected Claims 1-3 under 35 USC 103(a) over Harvey '525, in view of Mays '438, in view of Bevins '379. Applicant requests reconsideration of his application in view of this response, which provides argument in traversal of the rejection.

The rejected claims recite airflow blockage apparatus for a permanent split capacitor single-phase AC motor having main and auxiliary windings, the apparatus comprising current sensors, means for detecting a difference between the main winding current and the auxiliary winding current, and alarm means for indicating airflow blockage when the detected difference exceeds a specified setpoint. Applicant respectfully submits that the rejection of Claims 1-3 is in error because no combination of the cited patents teaches or suggests the recited airflow blockage apparatus. Harvey discloses a fan driven by a brush-type DC motor, where an alarm is sounded if the current supplied to the motor is outside a predetermined range; see column 6, lines 12-22. Mays discloses a fan driven by a brushless DC motor, where an alarm is sounded if the current supplied to any winding of the motor exceeds a stored value; see column 16, lines 5-16. Bevins discloses a fan driven by a split-capacitor single-phase AC motor, but is otherwise irrelevant to the claimed invention; in other words, Bevins is representative of the cooling fan drives mentioned in the Background portion of Applicant's specification.

At the outset, Applicant submits that techniques for detecting malfunctions of a DC motor are not necessarily applicable to a split-capacitor AC motor. However, even if the teachings of Harvey and Mays are applied to Bevins' split-capacitor AC motor, the result is not suggestive of Applicant's claimed invention. Harvey and Mays both disclose malfunction controls in which the current supplied to the motor is compared to a stored value, no matter how many windings the motor has. Applying this teaching to Bevins' split-capacitor single-phase AC motor would presumably result in a control where the current(s) supplied to the main and/or auxiliary windings is compared to a stored value.

This is different than the apparatus recited in the rejected claims. According to rejected Claim 1, the alarm control circuit determines *a difference between the main winding current and the auxiliary winding current*, and indicates airflow blockage when the *difference* exceeds a specified setpoint. Clearly, no combination of Harvey, Mays and Bevins teaches or suggests activating a motor malfunction alarm when a winding current *difference* exceeds a setpoint.

For the above reasons, Applicant respectfully requests that the rejection of Claim 1-3 under 35 USC 103(a) be withdrawn. Claims 1-3 are believed to be in condition for allowance, and such allowance is therefore respectfully requested.

Respectfully submitted,



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